

WHEN ELECTRIC SHOCK CAN MEAN LIFE - IMPLANTABLE CARDIOVERTER DEFIBRILLATOR AND ITS EFFECT: A CASE REPORT

Tomislav Kostić^{1,4}, Zoran Perišić¹, Dragana Stanojević¹, Goran Koraćević^{1,2}, Vladimir Mitov²,
Mladjan Golubović³, Predrag Cvetković¹, Mirko Krstić¹, Aleksandar Stojković¹,
Sonja Šalinger¹, Stefan Momčilović⁴, Sanja Banković⁴

¹Clinic for Cardiovascular diseases, Clinical Centre Niš, Serbia

²Health Centre Zaječar, Zaječar, Serbia

³Clinic for cardiothoracic and transplantation surgery, Clinical Centre Niš, Niš, Serbia

⁴University of Niš, Faculty of Medicine, Niš, Serbia

Contact: Tomislav Kostić
Blvd. dr Zoran Djindjić 48, 18000 Niš, Serbia
E-mail: tomislav.kostic1977@gmail.com

Sudden cardiac death (SCD) caused by ventricular fibrillation (VF) remains a major cause of mortality in the Western world. The majority of VF and cardiac arrest occur outside the hospital. Implantation of an ICD is strongly supported by evidence from many randomized trials for the primary and secondary prevention of sudden cardiac death. Current ICDs have multiple features to enhance diagnostics, minimize unnecessary pacing, conserve energy use, and deliver pain-free therapy such as anti-tachycardia pacing (ATP). The most important of above-mentioned features remains the ability of pacemaker to recognize a life-threatening ventricular arrhythmia and terminate it with shock. The benefit and significance of an ICD shock are dependent on the type of heart disease, and the presence of structural heart disease. These concepts are illustrated in a brief overview of ICD trials in patients with ischemic and nonischemic heart disease. We present a patient with dilated cardiomyopathy and a reduced left ventricular ejection fraction (LVEF) who had an ICD implanted 1 year ago, as a primary prevention of SCD. The patient was admitted to the Clinic for cardiovascular diseases after a brief loss of consciousness. The electrical control of the device showed that a VF suddenly occurred and was successfully interrupted by a shock as a type of ICD-based therapy.

Acta Medica Medianae 2019;58(2):56-61.

Key words: implantable cardioverter defibrillator, shock, sudden cardiac death